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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/901,329	07/09/2001	Terry L. Cole	2000.053500	6034

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WILLIAMS, MORGAN & AMERSON
10333 RICHMOND, SUITE 1100
HOUSTON, TX 77042

EXAMINER

MOORTHY, ARAVIND K

ART UNIT PAPER NUMBER

2131

DATE MAILED: 02/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/901,329	Applicant(s) COLE ET AL.	
	Examiner Aravind K. Moorthy	Art Unit 2131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This is in response to the arguments filed on 29 December 2005.
2. Claims 1-19 are pending in the application.
3. Claims 1-19 have been rejected.

Response to Arguments

4. Applicant's arguments filed 29 December 2005 have been fully considered but they are not persuasive.

On page 3, the applicant argues that there are no teachings regarding the format of the control information. The applicant argues that it is not reasonable to assert that the control information is exchanged in unencrypted form.

The examiner respectfully disagrees. Barabash does not disclose the control information being encrypted. Barabash teaches transmitting data in encrypted form. However there is no teaching of control information being included in the encrypted data. Therefore, the examiner asserts that the control information is sent in unencrypted form.

On page 5, the applicant argues that Barabash uses dedicated hardware and firmware, and as such, does not employ a software driver as commonly defined in the art.

The examiner respectfully disagrees. Nowhere in the Barabash reference does it disclose using dedicated hardware and firmware.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Barabash et al U.S. Patent No. 6,101,378.

As to claims 1, 9, 15 and 19, Barabash et al discloses a communications system, comprising:

a physical layer hardware unit adapted to communicate data over a communications channel, the physical layer hardware unit being adapted to receive unencrypted control codes [column 6, lines 34-42] and encrypted user data [column 2, lines 18-38] over the communications channel and transmit an upstream data signal over the communications channel based on the control codes [column 6, lines 34-42]; and

a processing unit adapted to execute a software driver for interfacing with the physical layer hardware unit, the software driver including program instructions for implementing a protocol layer to decrypt the user data and provide the upstream data to the physical layer hardware unit [column 2, lines 18-38].

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As to claims 2, 5, 10, 13 and 16, Barabash et al discloses that the control codes includes at least one of a power level assignment, a frequency assignment, and a tune slot assignment [column 6, lines 34-42].

As to claims 3, 11 and 17, Barabash et al discloses that the physical layer hardware unit includes:

- an analog front end adapted to sample a received signal over the communications channel to generate received signal samples [column 3, lines 38-51];

- a downconverter adapted to process the received signal samples to generate a carrierless waveform including the user data [column 3, lines 28-37];
- and

- a demodulator adapted to demodulate the received signal samples to generate the control codes [column 6, lines 34-42].

As to claims 4, 12 and 18, Barabash et al discloses that the physical layer hardware unit includes control logic adapted to receive the control codes and configure the downconverter based on the control codes [column 6, lines 34-42].

As to claims 6 and 14, Barabash et al discloses that the physical layer hardware unit includes:

- an upconverter adapted to receive the upstream data and generate an upstream digital signal, wherein the analog front end unit is further adapted to receive the upstream digital signal and generate the upstream data signal [column 6, lines 34-42]; and

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control logic adapted to receive the control codes and configure the upconverter based on the control codes [column 6, lines 34-42].

As to claim 7, Barabash et al discloses that the processing unit comprises a computer [column 3, lines 18-28].

As to claim 8, Barabash et al discloses that the computer includes:

a processor complex adapted to execute the program instructions in the software driver [column 2, lines 54-67];

a bus coupled to the processor complex [column 2, lines 54-67]; and

an expansion card coupled to the bus, the expansion card including the physical layer hardware [column 2, lines 54-67].

Conclusion

6. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aravind K. Moorthy whose telephone number is 571-272-3793. The examiner can normally be reached on Monday-Friday, 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R. Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Aravind K Moorthy *AM*
February 3, 2006

Ayaz Sheikh
AYAZ SHEIKH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100